



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,500	12/30/2003	Eric S. Shapiro	ITL.1050US (P17704)	8739
21906	7590	01/09/2006	EXAMINER	
TROP PRUNER & HU, PC 8554 KATY FREEWAY SUITE 100 HOUSTON, TX 77024			NGUYEN, PATRICIA T	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SF

Office Action Summary	Application No.	Applicant(s)	
	10/748,500	SHAPIRO ET AL.	
	Examiner	Art Unit	
	Patricia T. Nguyen	2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-13, 15, 16, 19-21, 23, 27 and 31 is/are rejected.
- 7) ☒ Claim(s) 2, 14, 17, 18, 22 and 24-26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/9/04

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, 6, 8-13, 15, 23, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Wong, U.S. Patent # 5,550,513.

Figs. 1, 3, and 5 of Wong discloses a circuit comprising: input stage 12 can be read as a differential preamplifier stage; stages 260-300 can be read as a distributed differential amplifier stage; transmission lines 80, 81, 87, 89, 236, 238 and resistors, inductors, capacitors on the lines can be read as bridging element wherein transmission lines 87 and 89 can be read as first and second output transmission lines or a first and a second line; resistors 252, 254, 256, 258, inductors 84 can be read as at least one passive element; resistors 232, 234, 242, 246, 252, 254, 256, 258, capacitors 244, 248 can be read as differential end termination interface.

Regarding claim 12, in Fig. 3, transistor 82 couple to first line 87 of the differential input can be read as a first transistor; transistor 82 couple to first line 80 of the differential output can be read as a second transistor.

Regarding claim 15, capacitor 262 can be read as one damping element.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 20, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong, U.S. Patent # 5,550,513.

Although Wong does not mention that the transmission lines are transverse electromagnetic transmission line segment, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use transverse electromagnetic transmission line segment for his transmission lines in order to have an optimum performance for his circuit since this is a matter of design choice.

Claims 16, 19, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong, U.S. Patent # 5,550,513 in view of Brehmer et al., U.S. Patent # 6,130,423.

Although Wong does not have an optical fiber coupled to the distributed amplifier stage, Brehmer et al. teaches such a connection. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to connect an optical fiber coupled to the distributed amplifier stage in order to have a practical use for the circuit since this is an intended use for the circuit to meet system requirements.

Allowable Subject Matter

Claims 2, 14, 17, 18, 22, 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents # 5,196,805, # 6,667,659 B2, and JP 2004072638 A contain some limitations of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia T. Nguyen whose telephone number is (703) 308-1927. The examiner can normally be reached on 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on 703-309-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2817

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PTN

October 3, 2005

PATRICIA NGUYEN
PRIMARY EXAMINER

Patricia Nguyen